

November 28, 2007



Recycling & Recovery EPA Region 10 Investigations and Engineering Unit (OEA-95) 1200 Sixth Avenue Seattle WA 98101 Attn: Dan Duncan

Marine & Industrial Cleaning

RE: Emerald Recycling

Report of PCB Contamination and De-Contamination

Iconco of Seattle

Recycled Products

Dear Mr. Duncan;

Waste Treatment & Disposal

As I mentioned in my email to you dated July 10, 2007, the Emerald Recycling facility located at 1500 Airport Way S. in Seattle, Washington (Emerald) received a shipment of oil contaminated with polychlorinated biphenyls (PCBs) on June 29, 2007. The contamination was discovered during routine PCB testing of bulked oil at the Emerald facility. The following is being provided as documentation of how the source of the contamination was determined, the decontamination procedures that were undertaken by Emerald, and the proper disposal of the contaminated oil as well as tank and equipment rinseates.

Automotive Fluids Management

Testing by the Emerald laboratory showed PCBs detected in the Emerald tank of consolidated oil. Per standard procedure, once PCBs are detected in the tank, the generator retain samples for the tank are then tested. Internal testing by the Emerald laboratory showed that the retain from Iconco of Seattle, located at 5409 Ohio Ave., Seattle WA 98134 had a significant concentration of PCBs. The retain was sent out for third-party PCB testing by method 8082 at Severn Trent Laboratory (STL, now Test America). STL reported a concentration of Arochlor 1016 at 2600 ppm in the retain from Iconco of Seattle.

Construction Services

Scattic.

Transportation Services

Once proper disposal and transportation were arranged, Emerald pumped the contaminated oil out of the storage tank to a tanker truck. Contaminated equipment was washed with water and the storage tank and transport tank were decontaminated with diesel per the enclosed PCB Tank Decontamination and Sampling Plan. The waste diesel and wash water generated during the

Vacuum Truck Services

Portable Storage

0001029

Emerald Recycling
Report of PCB Contamination and De-Contamination
Iconco of Seattle Shipment
November 28, 2007, Page 2 of 2

decontamination process were consolidated with the original PCB-contaminated oil in the tanker truck. All liquids were shipped as TSCA regulated waste on manifest #000263593FLE to Clean Harbors (copy enclosed).

If you have any questions regarding this report, or need additional information, please feel free to contact me at the numbers below.

Sincerely,

Sheila Smith, Environmental Coordinator

Emerald Services, Inc. (206) 832-3204 (Office)

(253) 370-7912 (Cell)

(206) 832-3304 (fax)

sheilas@emeraldnw.com

cc: APW Facility File

Enclosures: Emerald PCB Detection & Tracking Sheet

Severn Trent Analytical Report

Emerald PCB Tank Decontamination and Sampling Plan

Emerald PCB Swabs Analysis Report

Manifest #000263593FLE with Certificate of Treatment/Disposal





#### -PCB Detection & Tracking-

Flow Chart, and analytical results for tracing source contamination of inbound waste oil.

Analytical Method used: EPA 8082 (prep method 3580)

PCB's screened are Aroclors 1242/1248/1016/1232, Aroclor 1254, and Aroclor 1260

Page 1 of 2

Initial Contamination: Tank ID#:LS4

Date Sampled: 6-30-07

Emerald Lab ID #: 070630.0D

PCB\* results:

Aroclor1016 82 ppm

Date Analyzed6-30-07

By: Leslie Embrey

#### **Testing of trucks pumped into Contaminated Tank:**

Truck: Joe's

Emerald Lab ID #: 070630.0I-1

PCB results: ND \*\* see noteppm

Truck: Tylers

Emerald Lab ID #: 070630.0I-2

PCB results: ND \*\* see noteppm

Notes: Trucks sampled incorrectly, therefore ALL retains for both drivers were tested. The samples listed below are from the driver with the set of retains containing the contaminated sample. All Tylers retains were ND.

Date Analyzed6-30-07

By: Leslie Embrey

#### Testing of Individual Retain samples for the contaminated truck's route:

Emerald Lab ID #:070702.0M-1

Retain ID: Good Chevrolet

BOL#:311087

PCB results: ND

Emerald Lab ID #:070702.0M-2

Retain ID: Renton Honda

BOL#:311088

PCB results: ND

Emerald Lab ID #:070702.0M-3

Retain ID: Formula 1

BOL#:311089

PCB results: ND

Emerald Lab ID #:070702.0M-4

Retain ID: Cendent Car Rentals

BOL#:311090

PCB results: ND

Emerald Lab ID #:070702.0M-5

Retain ID: Kenworth NW

BOL#:311091

PCB results: ND

#### Testing of Individual Retain samples for the contaminated truck's route (cont):

Emerald Lab ID #:070702.0M-6 Retain ID: ASGI BOL#:311092

PCB results: ND

Emerald Lab ID #:070702.0M-7 Retain ID: Vaqueous Auto BOL#:311093

PCB results: ND

Emerald Lab ID #:070702.0M-8 Retain ID: Quick Lube BOL#:311094

PCB results: ND

Emerald Lab ID #:070702.0M-9 Retain ID: Iconco BOL#:311095

PCB results: Aroclor 1016 > 2000 ppm

Emerald Lab ID #:070702.0M-10 Retain ID: Boyer Logistic BOL#:311096

PCB results: Aroclor 1016 38.9 ppm (\* retain probably cross contaminated from previous sample\*)

Analyst: Leslie Embrey Date:7-2-07

Contaminated Retain sample was sent to outside lab for PCB verification, per EMS.

#### THIS IS NOT AN INVOICE

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5	☐ 1825 Alexander Avenue Tacoma, WA. 98421 EPA ID#WAD981769110	□ 1300 West 12th Stro Vancouver, WA 98 EPA ID#WAD06879	3660	☐ 900 Phillips Street Missoula, MT. 59802 EPA ID#MTD982590440	☐ 2222 Boulder A Helena, MT 59 EPA ID#MTR	604	
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State & Zi	p: 9813	· ·	State &	& Zip:			
Driver:	306	19	Equip	No.: 77	25		
Route Nun	nber.: 201		Other:				

Customer Phone Number: 763 0900 Customer Contact: JoH. P.O. Number: Next Service Date: Qty/Gal Item Description Profile # Unit Price Amount SOUUO Used Oil (Not USDOT Regulated) G00505 BFU Used Brake Fluid G02907 **CHLOR** Chlor D Tect™/ HH Pass Fail MF. Off Spec Fuel G02901 OW Oil/Water Mixture (Not USDOT Reg) G00501 **OWS** Oil/Water Sludge AMU Used Absorbent Pads G00504 OFTO0 Used Oil Filters (No Gasket) - Crushed G04714 Used Oil Filters (No Gasket) - Uncrushed OF300 G04715 AFU Used Anti-Freeze (Recycling) Non-Regulated Material, Spent Antifreeze (for recycle) PWS Partwasher Service MOD/COM Used Solvent (LQG MANIFEST). Flammable Liquids n.o.s. (benzene, lead), 3, UN1993, PG-II, ERG #128 AFN \* Antifreeze, New 100%, 50/50 R/C-AM New Absorbent Pads SERV Service Fee TT Truck/ Operator Time Subtotal \* Sales Tax ( %)

I hereby declare that the contents of the consignment are fully and accurately described on the above Bill of Lading by proper DOT shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to 49 CFR. I further declare that this material is not regulated as a hazardous waste, dangerous waste, or PCB waste nor mixed with a hazardous waste, or PCB waste under WAC 173-303 or 40CFR Part 261, or 40CFR Part 279. If contents are used oil, as generator, I hereby certify to the best of my knowledge that this oil is refined from crude oil, used, and are in the contents are used oil, as generator, I hereby certify to the best of my knowledge that this oil is refined from crude oil, used, and are in the case of the contents are used oil operations. Generators are that can be attributed to used oil operations. Generators as a result of such use is contaminated by physical or chemical impurities that resulted only from processes that can be attributed to used oil operations. Generator agrees to indemnify and hold harmless Emerald Services, Inc. or its subsidiary for any damages, costs, attorneys, and expert fees arising out of or in any way related to a breach of the above certifications. Chem-Tel, Inc. 24 Hour Emergency Response Line 1-800-424-9300

Customer Signature:

Total

STL

#### **ANALYTICAL REPORT**

Job Number: 580-6418-1

Job Description: PCB

For: Emerald Services 9010 E Marginal Way S Suite 200 Seattle, WA 98108

Attention: Leslie Embrey

Dry J. Cound

Ivy J Bolm

Project Manager I ibolm@stl-inc.com

07/05/2007

cc: Jon Skinner

Project Manager: Ivy J Bolm

STL Seattle is a part of Severn Trent Laboratories, Inc.

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#### **METHOD SUMMARY**

Client: Emerald Services

Job Number: 580-6418-1

Description	Lab Location	Method	Preparation Method
Matrix: Waste			
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	STL SEA	SW846 8082	
Waste Dilution	STL SEA		SW846 3580A

#### LAB REFERENCES:

STL SEA = STL Seattle

#### **METHOD REFERENCES:**

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### SAMPLE SUMMARY

Client: Emerald Services

Job Number: 580-6418-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-6418-1	070702-OM1-Oil Retain from BOL#311095	Waste	07/02/2007 0000	07/03/2007 1300
580-6418-2	070702-OM2-Oil Retain	Waste	07/02/2007 0000	07/03/2007 1300

#### **Analytical Data**

Client: Emerald Services

Job Number: 580-6418-1

Client Sample ID:

070702-OM1-Oil Retain from BOL#311095

Lab Sample ID:

580-6418-1

Client Matrix:

Waste

Date Sampled:

07/02/2007 0000

Date Received: 07/03/2007 1300

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:

8082

Analysis Batch: 580-20231

Instrument ID:

**SEA034** 

Preparation:

3580A

PCB8578.D

Dilution:

Prep Batch: 580-20195

Lab File ID:

Date Analyzed:

100

Initial Weight/Volume: Final Weight/Volume:

0.2097 g 10 mL

Date Prepared:

07/05/2007 1537 07/05/2007 0811

Injection Volume: Column ID:

**PRIMARY** 

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL	
PCB-1016		2600		48	
PCB-1221		ND		48	
PCB-1232		ND		48	
PCB-1242		ND		48	
PCB-1248		ND		48	
PCB-1254		ND		48	
PCB-1260		ND		48	
Surrogate		%Rec		Acceptance Limits	
Tetrachloro-m-xylene		105	D	45 - 155	***************************************
DCB Decachlorobiphenyl		200	X D	50 - 150	

#### **Analytical Data**

Client: Emerald Services

Job Number: 580-6418-1

Client Sample ID:

070702-OM2-Oil Retain from BOL#311096

Lab Sample ID:

580-6418-2

Client Matrix: Waste Date Sampled:

07/02/2007 0000

Date Received: 07/03/2007 1300

#### 8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:

8082

Analysis Batch: 580-20231

Instrument ID:

**SEA034** 

Preparation:

3580A

Prep Batch: 580-20195

Lab File ID:

PCB8577.D

Dilution:

Date Prepared:

1.0

Initial Weight/Volume:

0.2097 g

07/05/2007 1514 Date Analyzed:

07/05/2007 0811

Final Weight/Volume: Injection Volume:

10 mL

Column ID:

**PRIMARY** 

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier		RL
PCB-1016		39	,		0.48
PCB-1221		ND			0.48
PCB-1232		ND			0.48
PCB-1242		ND			0.48
PCB-1248		ND			0.48
PCB-1254		ND			0.48
PCB-1260		ND			0.48
Surrogate		%Rec		Acceptance L	imits
Tetrachloro-m-xylene		64		45 - 155	
DCB Decachlorobiphenyl		50		50 - 150	

# **QUALITY CONTROL RESULTS**

#### **Quality Control Results**

Client: Emerald Services

Job Number: 580-6418-1

Method Blank - Batch: 580-20195

Method: 8082 Preparation: 3580A

Lab Sample ID: MB 580-20195/3-A

Client Matrix: Waste

Dilution:

1.0

Date Analyzed: 07/05/2007 1339 Date Prepared: 07/05/2007 0811

Analysis Batch: 580-20231 Prep Batch: 580-20195

Units: mg/Kg

Instrument ID: SEA034 Lab File ID: PCB8573.D

Initial Weight/Volume: 0.2 g Final Weight/Volume: 10 mL

Injection Volume:

Column ID:

PRIMARY

Analyte	Result	Qual	RL
PCB-1016	ND		0.50
PCB-1221	ND		0.50
PCB-1232	ND		0.50
PCB-1242	ND		0.50
PCB-1248	ND		0.50
PCB-1254	ND		0.50
PCB-1260	ND		0.50
Surrogate	% Rec	Acceptance Limits	
Tetrachloro-m-xylene	85	45 - 155	
DCB Decachlorobiphenyl	62	50 - 150	

#### **Quality Control Results**

Client: Emerald Services

Job Number: 580-6418-1

Lab Control Spike/

Lab Control Spike Duplicate Recovery Report - Batch: 580-20195

Method: 8082

Preparation: 3580A

LCS Lab Sample ID: LCS 580-20195/4-A

Client Matrix:

Waste

Dilution:

Date Analyzed: Date Prepared:

1.0

07/05/2007 0811

07/05/2007 1402

Analysis Batch: 580-20231 Prep Batch: 580-20195

Units: mg/Kg

Instrument ID: SEA034 Lab File ID:

PCB8574.D

Initial Weight/Volume: 0.2 g

Final Weight/Volume: 10 mL

Injection Volume:

Column ID:

**PRIMARY** 

LCSD Lab Sample ID: LCSD 580-20195/5-A

Client Matrix: Dilution:

Waste

Date Analyzed: Date Prepared: 1.0

07/05/2007 1426 07/05/2007 0811 Analysis Batch: 580-20231 Prep Batch: 580-20195

Units: mg/Kg

Instrument ID:

**SEA034** Lab File ID: PCB8575.D

Initial Weight/Volume: 0.2 g Final Weight/Volume: 10 mL

Injection Volume:

Column ID:

**PRIMARY** 

	<u>%</u>	Rec.					
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	64	64	57 - 128	1	8		
PCB-1260	65	68	65 - 132	3	8		
Surrogate	LC	LCS % Rec		Rec	Acceptance Limits		
Tetrachloro-m-xylene	85	85			4:		
DCB Decachlorobiphenyl 59		60		50 - 150			



TO-STL

#### CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

8232

PO# FR-10292

9010 E. Marginal Way (206) 832-3000 • Fax	(206) 832-3030	Washington 98108				11 "			10	12		6418
GENERATOR NAME:	Emera	ld Ke	cyclin	_								0770
GENERATOR CONTA	ICT: JON	Skinn	2		ANALVEIS	REQUESTE			***************************************			
GENERATOR PHONE		1~837-5	2091		CONFIRMING	CHARACTERIZE	IGNITABILITY	D-LISTED	D-LISTED	D-LISTED	F-LISTED	OTHER
		ر ٥٥ر		_	ANALYSIS ONLY	FOR DISPOSAL	CORROSIVITY	METALS	PESTICIDES AND	ORGANICS	ORGANICS	(PLEASE SPECIFY)
EMERALD CONTACT				_	INFORMATION ATTACHED		REACTIVITY D001-D003	BY TCLP D-004-D011	HERBISIDES BY TCLP D-012-D017	D-018-D043	F001-F005	
ESI GENERATOR SAMPLE ID		PROCESS GENERATING WASTE		# OF SAMPLES EACH	ONE SAMPLE REQUESTED		1	TWO SAMPLE	S REQUIRED			
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### LOGIN SAMPLE RECEIPT CHECK LIST

Client: Emerald Services

Job Number: 580-6418-1

Login Number: 6418

Question	T/F/NA	Comment	
Radioactivity either was not measured or, if measured, is at or below background	True		
The cooler's custody seal, if present, is intact.	True		
The cooler or samples do not appear to have been compromised or tampered with.	True		
Samples were received on ice.	False	In Box	
Cooler Temperature is acceptable.	NA		
Cooler Temperature is recorded.	NA		
COC is present.	True		
COC is filled out in ink and legible.	True		
COC is filled out with all pertinent information.	True		
There are no discrepancies between the sample IDs on the containers and the COC.	True		
Samples are received within Holding Time.	True		
Sample containers have legible labels.	True		
Containers are not broken or leaking.	True		
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA		
If necessary, staff have been informed of any short hold time or quick TAT needs	True		
Multiphasic samples are not present.	True	*	
Samples do not require splitting or compositing.	True		

#### PCB TANK DECONTAMINATION AND SAMPLE PLAN

This PCB Tank Decontamination and Sample Plan (Plan) outlines the steps to be taken when decontaminating a tank that has contained TSCA contaminated oil. It may also be used to decontaminate a tank containing lower levels of PCB contamination.

The first step of decontamination is a thorough rinsing/flushing of the tank with diesel fuel (kerosene may also be used). The tank must be rinsed a minimum of three times. Each rinse must use a volume of diesel equivalent to approximately 10 percent of the container capacity.

Following the tank rinsing, swab samples must be taken of the tank interior and inlet and outlet piping. The attached diagram shows a typical tank shape. For swab sampling, the tank is divided into six sections: north wall, south wall, east wall, west wall, floor, and ceiling. For each section, a template of approximately  $10 \text{cm} \times 10 \text{cm}$  grid is used to identify sample locations. Take inlet/outlet swabs in a circular sweep of the tube. A gauze pad treated with hexane is used for swiping each point within the sample grid. Each swipe taken within a section is composited for PCB analysis. A total of 6 composite samples will be needed. However this number will increase to include any inlet and outlet piping.

The tank is considered to be decontaminated if all swipe sample results are below  $10\mu g/100cm2$ . If any results are above  $10\mu g/100cm2$ , the tank must be rinsed and reswiped until all results are below the  $10\mu g/100cm2$  limit.



# Analysis Report Form Sample Identification: PCB Wipes for LS4

Contact Person: Bill DeNike

Seattle Lab ID#:070730.0M (1-6)

NOTE: All units are in ug/100cm2 unless otherwise specified

Parameter: PCB\* wipe test

\*Aroclors screened: Aroclors 1242/1248/1016/1232, Aroclor 1254 and Aroclor 1260

By Method 8082

Samples are run on a Hewlett Packard 5890 Gas Chromatograph

Project Description: PCB wipes for container #LS4 decon.

#### **Quality Control**

Sample	Results	MDL	Surrogate recovery (decachlorobiphenol):
North Wall	< 10	10.0 ug/10	00cm2 107
South Wall	< 10	10.0 ug/10	00cm2 92
Front Wall	< 10	10.0 ug/10	00cm2 102
Rear Wall	< 10	10.0 ug/10	00cm2 87
Тор	< 10	10.0 ug/10	00cm2 80
Floor	< 10	10.0 ug/10	00cm2 80

Analyst: L. Embrey

Date:7-31-07

36453

# DI 1545027

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		. Transporter 2 Compan	y Name							U.S. EPA ID N	lumber		18364	D4/
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	9a HI			g Proper Shipping Name, Haza	ard Class, ID Number,			10. Contain	Type	11. Total Quantity	12. Unit Wt./Vol.	13. V	Naste Code	98
GENERATOR -		MA3082, n.o.s.(L	RQ, Hez	ardous waste, LYCHLORINATED RG#171	liquid,	5), 9,		t	π	28960	K	8000	TSC	,
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ㅓ	18. [	Discrepancy												Щ
	18a.	Discrepancy Indication	Space	Quantity	Туре	250	Resi			Partial Reject	ion		Full Rejec	tion
FACILITY	18b.	Alternate Facility (or Ge	nerator)				Mannest	Reference N	umber;	U.S. EPA ID Nun	nber			
~ -		ity's Phone:												
₹		Signature of Alternate F										Month	Day	Year
7	19. H 1.	lazardous Waste Report	Management Me	thod Codes (i.e., codes for ha	zardous waste treatme	nt, disposal, an	d recycling sy	stems)						
ıL		H040		4.		3.				4.				
1	20. D Printe	esignated Facility Owner od/Typed Name	er or Operator: Ce	rtification of receipt of hazardo	ous materials covered b	y the manifest o		ed in Item 18	Ba			17.3		
1		8700-22 (Rev. 3-05)	Previous aditi	MILLE ons are obsolete		- J		lk		elles	NA P	Month 1	Day	Year
								DESIGN	ATED FA	CILITY TO DE	STINATIC	N STATE	(IF REQ	UIRED)



## LDR NOTIFICATION FORM

Gener	ator EM	ERALD RECYCLING	Man	000263592FLE					
Pursuant to 40 CFR §268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268 Land Disposal Restrictions (LDR).									
		A. GENERAL V	VASTE N	OTIFI	CATION				
Form Line No.	Profile No.	EPA/WA Waste Codes & LDR Subcategories (if any) List codes or use Attachment 1	NWW	ww		Vaste Constituent Notification Check the "None" box or ist Levend Constituent # or use			
1	CH144002B				⊠ None	☐ Check if Attachment 2 has been used			
2	CH150552		×		⊠ None	☐ Check if Attachment 2 has been used			
3		☐ Check if Attachment 1 has been used			□None	☐ Check if Attachment 2 has been used			
4		☐ Check if Attachment 1 has been used			None	☐ Check if Attachment 2 has been used			
5		☐ Check if Attachment 1 has been used			□ None	☐ Check if Attachment 2 has been used			
6		Check if Attachment 1 has been used			None				
The v		B. HAZARDOUS DEB identified above on Line No(s). lowing contaminants subject to treatment (check all	is subject that apply):	to the alte	TION	Check if Attachment 2 has been used ment standards of 40 CFR §268.45.			
This of Comp hazar provi	contaminated soil, as olete the following: dous waste & [ ] do ded by §268.49(c) o ersal Treatment Standium & zinc, & are programment of the standium & zinc, & are programment & zinc,	C. CONTAMINATED SOIL NOTI identified above on Line No(s).  "I certify under penalty of law that I personally hose / does not] exhibit a characteristic of hazarder the universal treatment standards". Note: Considered that are reasonably expected to be present it resent at concentrations greater than ten times the universal treatment standards.	is subject ave examinated waste examinated waste existing the arrow given in any given inversal treatments.	ON & C t to the alt ed this co & [ is s bject to tr a volume	ERTIFIC ternative treat intaminated s subject to / [ reatment are of contaminal andard.	timent standards of 40 CFR §268.49(c).  soil & it [does/does not] contain listed complies with] soil treatment standards as any constituents listed in 40 CFR §268.48 and soil, except fluoride, selenium, sulfides,			
D. LAB PACK (INCINERATION) NOTIFICATION & CERTIFICATION  This lab pack, as identified above on Line No(s).  "I certify under penalty of law that I personally have examined & am familiar with the waste & that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR Part 268 & that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR §268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment".									
This w	E. EXTENSIONS & VARIANCES  is not prohibited from land disposal & is subject to a deadline extension or variance, e.g., treatability variance, case-by-case extension. Describe below any extension or variance that applies to this waste & include applicable dates:								
M	WLE Generator's Authoriz	ed Signature Name & Title	//ko_ (Printed or		BR.				

### LDR ATTACHMENT 1: EPA WASTE CODE LISTING

Note: If this form is necessary for notification purpose, it must be used in conjunction with the Notification form and/or Certification form Generator Manifest Line#'s EPA Code Line#'s EPA Code Line #'s Line#'s **EPA Code** EPA Code | Line #'s **EPA Code** Line #'s **EPA** Code "D" Characteristic Codes D009 HM D001 ICW D004 (Organic) D009 HM D017 D026 D035 D001 LQ (≥10% TOC) D005 (Inorganic) D018 D027 D036 D002 D006 D010 D019 D028 D037 D003 EX D006 CB D011 D020 D029 D038 D003 OR D007 D012 D021 D030 D039 D003 RC D008 D013 D022 D031 D040 D003 RS D008 LB D014 D023 D032 D041 D003 UO D009 LM-NRR D015 D024 D033 D042 D003 WR D009 LM-RR D016 D025 D034 D043 "F" Listed Codes F001 F006 F011 F022 F027 F037 F002 F007 F012 F023 F028 F038 F003 F008 F019 F024 F032 F039 F004 F009 F020 F025 F034 F005 F010 F021 F026 F035 "K" Listed Codes K001 K022 K043 K086 K109 K144 K002 K023 K044 K087 K110 K145 K003 K024 K045 K088 K111 K147 K004 K025 K046 K093 K112 K148 K005 K026 K047 K094 K113 K149 K006 AN K027 K048 K095 K114 K150 K006 HY K028 K049 K096 K115 K151 K007 K029 K050 K097 K116 K156 K008 K030 K051 K098 K117 K157 K009 K031 K052 K099 K118 K158 K010 K032 K060 K100 K123 K159 K011 K033 K061 K101 K124 K161 K013 K034 K062 K102 K125 K169 K014 K035 K069 CS K103 K126 K170 K015 K036 **K069 NCS** K104 K131 K171 K016 K037 K071 RR K105 K132 K172 K106 LM-K017 K038 **K071 NRR** RR K106 LM-NRR K136 K018 K039 K073 K140 K019 K040 K083 K106 HM K141 K020 K041 K084 K107 K142 K021 K042 K085 K108 K143 "P" Listed Codes P001 P012 P024 P038 P049 P064 P002 P013 P026 P039 P050 P065 NIRR P003 P014 P027 P040 P051 P065 LM-IR P004 P015 P028 P041 P054 P065 LM-RR P005 P016 P029 P042 P056 P065 HM- IRR P006 P017 P030 P043 P057 P066 P007 P018 P031 P044 P058 P067 P008 P020 P033 P045 P059 P068 P009 P021 P034 P046 P060 P069 P010 P022 P036 P047 P062

P070

P071

Note: The Line #'s are from the Notification Form, not the hazardous waste manifest.

P037

P048

P063

P023

P011

LDR ATTACHMENT 1: EPA WASTE CODE LISTING - PAGE 2 MANIFEST NO.:

Line #'s	EPA Code	Line#'s	EPA Code	Line#'s	EPA Code	Line #'s	EPA Code	Line#'s	EPA Code	Line#'s	EPA Code
	P072		P087		P097		P110		P122		P196
	P073		P088		P098		P111		P123		P197
	P074		P089		P099		P112		P127		P198
	P075		P092 NIRR		P101 ·		P113		P128		P199
	P076		P092 LM-		P102		P114		P185		P201
	P077		P092 LM- RR		P103		P115		_ P188		P202
			P092 HM-								
· ·	P078		IRR		P104		P116		_ P189		. P203
	P081		P093 P094		P105		P118		_ P190		P204
	P082 P084		P094 P095		P106 P108		P119		P191 P192		P205
	P085		P095 P096		P108		P120 P121		P192		
	F003		F090		and the second second	ted Codes	F121		_ F194		
	U001		U045		U089	EN CONS	U133		U174		U221
	U002		U046		U090		U134		U176		U222
	U003		U047		U091		U135		U177		U223
	U004		U048		U092		U136		U178		U225
	U005		U049		U093		U137		U179		U226
	U006		U050		U094		U138		U180		U227
	U007		U051		U095		U140		U181		U228
	U008		U052		U096		U141		U182		U234
	U009		U053		U097		U142		U183		U235
	U010		U055		U098		U143		U184		U236
	U011		U056		U099		U144		U185		U237
	U012		U057		U101		U145		U186		U238
	U014		U058		U102		U146		U187		U239
	U015		U059		U103		U147		U188		U240 (2,4-
			*****								U240 (2,4-
	U016 U017		U060 U061		1/105 U106		U148		TJ189		Salts)
	U018		U062		U107		U149 U150		U190		U243
	0018		0002		0107		U151 LM-		U191		U244
	17019		U063		11108		NRR U151 LM-		ТЛ92		17246
	17020		17064		T7109		RR .		17193		11247
	U021		U066		U110		U151 HM		U194		U248
	U022		U067	1	טווו [		UI52		U196		U249
	U023		U068		U112		U153		U197		U271
	U024		U069	1	U113		U154		U200		U278
_	U025		U070	1	U114		U155		U201		U279
	U026		U071	1	U115		U156		U202		U280
	U027	1	U072		U116		U157		U203		U328
	U028		U073		J117		J158		U204		U353
	U029		U074		J118	1	J159		U205		U359
	U030		U075		J119	1	J160		U206		U364
	U031		U076	τ	Л20	1	J161		U207		U367
	U032		U077		J121		J162		U208		U372
	J033		U078		J122		Л63		U209		U373
	U034		U079	t	J123		J164		U210	1	U387
	J035		U080		J124		J165		U211		U389
	J036		U081		J125		J166		U213	1	U394
	J037		U082		J126		J167		U214	1	U395
	J038		J083	t	J127	t	J168		U215	1	J404
	J039		J084	t	J128	J	1169		U216		J408
	J041	τ	J085	t	1129		1170		U217		J409
	J042	t	J086	U	1130	t	1171		U218		J410
ι	J043	t	J087	U	1131	ττ	1172		U219		J411
T	J044	T.	J088	U	1132	T.	173		U220		

Note: The Line #'s are from the Notification Form, not the hazardous waste manifest.

# LDR ATTACHMENT 2: WASTE CONSTITUENT NOTIFICATION Note: If this form is necessary for notification purposes, it must be used in conjunction with the Notification form and/or Certification form.

Genera	tor				_ Manif	est					
LDR Inorganic Constituents (40 CFR §268.48)											
Line #'s	Constituent	Legend #	Line #'s		Legend#	Line #'s	Constituent	Legend			
	Antimony	246		Cyanides (Total)	252		Nickel	25			
	Arsenic	247		Cyanides (Amenable)	253		Selenium <sup>1</sup>	25			
	Barium	248		Fluoride 1	254		Silver	20			
	Beryllium	249		Lead	255		Sulfide 1	2			
	Cadmium	250		Mercury - NWW from Retort	256		Thallium	20			
	Chromium (Total)	251		Mercury - All others	257		Vanadium <sup>1</sup>	20			
			LDR On	ganic Constituents (40 C	FR 8268.4	8)					
ine #'s	Constituent	Legend #	Line #'s				Line #'s Constituent Legen				
	Acenaphthene	49		2-sec-Butyl-4,6- dinitrophenol							
				(Dinoseb)	79		o,p'-DDT	11			
	Acenaphthylene	50		Carbaryl *	270		p,p'-DDT	11			
	Acetone	51		Carbenzadim *	271		Dibenz(a,h)anthracene	11			
	Acetonitrile	52		Carbofuran *	272		Dibenz(a,e)pyrene	11			
	Acetophenone	53		Carbofuran phenol *	273		1,2-Dibromo-3-chloropropane	10			
	2-Acetylaminofluorene	54		Carbon disulfide	80		1,2-Dibromoethane (Ethylene	10			
	Acrolein	55		Carbon tetrachloride	81		dibromide)	10			
	Acrylamide *	56					Dibromomethane	10			
	Actylamide	30		Carbosulfan * Chlordane (alpha & gamma	274		m-Dichlorobenzene	11			
	Acrylonitrile	57		isomers)	82		o-Dichlorobenzene	11			
	Aldicarb sulfone *	265		p-Chloroaniline	83		p-Dichlorobenzene	11			
	Aldrin	58		Chlorobenzene	84		Dichlorodifluoromethane	11			
	4-Aminobiphenyl	59		Chlorobenzilate	85		1,1-Dichloroethane	12			
	Aniline	60		2-Chloro-1,3-butadiene	86						
	Anthracene	61		Chlorodibromomethane	87	<u>-</u>	1,2-Dichloroethane	12			
	Aramite	62		Chloroethane			1,1-Dichloroethylene	12:			
	Barban *	266			88		trans-1,2-Dichloroethylene	123			
				bis(2- Chloroethoxy) methane	89		2,4-Dichlorophenol	124			
	Bendiocarb *	267		bis(2-Chloroethyl)ether	90		2,6-Dichlorophenol	125			
	Benomyl *	268		2-Chloroethyl vinyl ether *	94		2,4-D (2,4-Dichlorophenoxy- acetic acid)	107			
	Benz(a)anthracene	68		Chloroform	91		1,2-Dichloropropane	126			
	Benzal chloride *	69		bis(2-Chloroisopropyl)ether	92		cis-1,3-Dichloropropylene	127			
	Benzene	67		p-Chloro-m-cresol	93						
	Benzo(b)fluoranthene	70		Chloromethane (Methyl chloride)	-		trans-1,3-Dichloropropylene	128			
	Benzo(k) fluoranthene	71					Dieldrin	129			
				2-Chloronaphthalene	96		Diethyl phthalate	130			
	Benzo(g,h,i) fluoranthene	72		2-Chlorophenol	97		p-Dimethylaminoazobenzene *	140			
	Benzo(a)pyrene	73		3-Chloropropylene	98		2-4-Dimethyl phenol	131			
	alpha-BHC	63		Chrysene	99		Dimethyl phthalate	132			
	beta-BHC	64		o-Cresol	100		Di-n-butyl phthalate	133			
	delta-BHC	65		m-Cresol	101		1,4-Dinitrobenzene	134			
	gamma-BHC	66	1	p-Cresol	102		1,6-Dinitro-o-cresol	135			
	Bromodichloromethane	74		n-Cumenyl methylcarbamate *	275		2,4-Dinitrophenol				
	Bromomethane (Methyl	75						136			
	hromide)	-		Cyclohexanone	103	:	2.4-Dinitrotoluene	137			
	4-Bromophenyl phenyl ether			p,p'-DDD	108		2,6-Dinitrotoluene	138			
	n-Butyl alcohol	77		p,p'-DDD	109	I	Di-n-octyl phthalate	139			
I	Butyl benzyl phthalate	78		p,p'-DDE	110	I	Di-n-propylnitrosamine	141			
I	Butylate *	269		,p'-DDE	111		.4-Dioxane	142			

LDR ATTACHMENT 2: WASTE CONSTITUENT NOTIFICATION - PAGE 2 MANIFEST NO.:

Line #'s	Constituent 1	Legend#	Line #'s	Constituent	Legend #	Line #'s	Constituent	Legend#
	Diphenylamine	143		Methyl ethyl ketone	184		Physostigmine salicylate *	287
	Diphenylnitrosamine	144		Methyl isobutyl ketone	185		Promecarb *	288
	1,2-Diphenylhydrazine	145		Methyl methacrylate	186		Pronamide *	218
	Disulfoton	146		Methyl methansulfonate	187		Propham *	289
	Dithiocarbamates (total) *	276		Methyl parathion	188		Propoxur *	290
	Endosulfan I	147		3-Methylcholanthrene	181		Prosulfocarb *	291
	Endosulfan II	148		4,4-Methylene bis(2-chloro- aniline)	182		Pyrene	219
	Endosulfan sulfate	149		Methylene chloride	183		Pyridine	220
	Endrin	150		Metolcarb *	281		Safrole	221
	Endrin aldehyde	151		Mexacarbate *	282		Silvex (2,4,5-TP)	222
							TCDDs (All Tetrachloro-	222
	EPTC	277		Molinate *	283		dibenzo-n-dioxins)	225
	2-Ethoxyethanol **	32		Naphthalene	189		TCDFs (All Tetrachloro- dihenzofurans)	226
-	Ethyl acetate	152		2-Naphthylamine	190		1,2,4,5-Tetrachlorobenzene	224
	Ethyl benzene	154		o-Nitroaniline *	191		1,1,1,2-Tetrachloroethane	227
	Ethyl cyanide	153		p-Nitroaniline	192		1,1,2,2,-Tetrachloroethane	228
	Ethyl ether	155		Nitrobenzene	193		Tetrachloroethylene	229
	Ethyl methacrylate	157		5-Nitro-o-toluidine	194		2,3,4,6-Tetrachlorophenol	230
	Ethylene oxide	158		o-Nitrophenol *	195		Thiodicarb *	292
	bis(2-Ethylhexyl) phthalate	156		p-Nitrophenol	196		Thiophanate-methyl *	293
	Famphur	159		2-Nitropropane **	33		Toluene	231
	Fluoranthene	160		N-Nitrosodiethylamine	197		Toxaphene	232
	Fluorene	161		N-Nitrosodimethylamine	198		Triallate *	294
	Formetanate hydrochloride			N-Nitroso-di-n-butylamine	199		Tribromomethane (Bromoform)	
	Heptachlor	162		N-Nitrosomethylethylamine	200		2,4,6-Tribromophenol	295
	Heptachlor epoxide	163		N-Nitrosomorpholine	201		1,2,4-Trichlorobenzene	234
	Hexachlorobenzene	164		N-Nitrosopiperidine	202			
	Hexachlorobutadiene	165		N-Nitrosopyrrolidine	202		1,1,1-Trichloroethane	235
	Hexachlorocyclopentadiene			Oxamyl *	284		1,1,2-Trichloroethane	236
	Hexachloroethane	169		Parathion	204		Trichloroethylene	237
	Hexachloropropylene	170		Total PCBs	205		Trichloromonofluoromethane	238
	HxCDDs (All Hexachloro-			Total PCDs	203		2,4,5-Trichlorophenol	239
	dihenzo-n-dioxins)	167		Pebulate *	285		2,4,6-Trichlorophenol	240
	HxCDFs (All Hexachloro- dibenzofurans)	168		Pentachlorobenzene	206		2,4,5-T (2,4,5-Trichloro- nhenoxyacetic acid)	223
	Indeno (1,2,3-c,d) pyrene	171		PeCDDs (All Pentachloro-	2007	_		55-565500
				dibenzo-n-dioxins) PeCDFs (All Pentachloro-	207		1,2,3-Trichloropropane 1,1,2-Trichloro-1,2,2,-	241
	Iodomethane	172		dibenzofurans)	208		trifluomethane	242
	Isobutyl alcohol	173		Pentachloroethane *	209		Triethylamine *	296
	Isodrin	174		Pentachloronitrobenzene	210		tris-(2,3-Dibromopropyl)	243
	Isosafrole	175		Pentachlorophenol	211		Vernolate *	297
	Kepone	176		Phenacetin	212		Vinyl chloride	244
	Methacrylonitrile	177		Phenanthrene	213		Kylenes- mixed isomers	245
	Methanol	178		Phenol	214			
	Methapyrilene	179		Phorate	215			
	Methiocarb *	279		Phthalic acid *	216			
	Methomyl *	280		Phthalic anhydride	217			l
				minute anni y di loc				

\*\* F005 wastes containing no other F001-F005 solvents

Note: Line # 's are from the Notification Form, not the hazardous waste manifest



## **Waste Tracking Report**

November 14, 2007

Page 1

**CLHB Generator Id:** 

EM9274

Emerald Recyling Services Seattle, WA 98134

EPA ID:

WAD058367152

Manifest Dates: 01/01/06

to 11/14/07

CLHB Receiving Facility: Aragonite, UT Facility

State Mnfst. Doc. No: 000263593FLE Work Order: DI1545027

Qty

Mnfst. Doc No: Job Type:

**Bulk Shipment** 

Gen Sign Date: 07/30/07

Date Recvd: 08/01/07

Line: 1

Total Qty:

Activity Date

**Drum No** 

**Profile No:** 

Code

CH144002B UOM

**Manifested Cntnrs:** 

1 TT **Manifest Out** 

28,960 K

Mgt Method Code

13826279

DH3 57,500

LBS

Incinerated

**Disposal Site** 

08/07/07

H040



### **Certificate of Treatment/Disposal - Storage and Transfer**

November 14, 2007

Page 2

Aragonite, UT Facility 11600 North Aptus Road Grantsville, UT 84029 UTD981552177

Manifest No.

Recv. Date

000263593FLE

08/01/07

The above described waste, received at the Clean Harbors facility listed above pursuant to the manifest(s) listed above, has been treated and/or disposed of by Clean Harbors, or another licensed facility approved by Clean Harbors, in accordance with applicable federal and state laws and regulations. Any waste received by Clean Harbors and subsequently shipped to another licensed facility has been or shall be identified as being generated by Clean Harbors in accordance with 40CFR 264.71(c).

Under civil and criminal penalties of law for the making of submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.